

## PROCEEDINGS OF LEARNED SOCIETIES.

## GEOLOGICAL SOCIETY.

February 24th, 1909.—Prof. W. J. Sollas, LL.D., Sc.D., F.R.S.,  
President, in the Chair.

The following communications were read:—

1. 'Palæolithic Implements, etc. from Hackpen Hill, Winterbourne Bassett, and Knowle-Farm Pit (Wiltshire).' By the Rev. Henry George Ommanney Kendall, M.A.

Implements are described from the localities mentioned in the title, which lie at heights of 885, 576, and 450 feet above O.D. respectively. Hackpen Hill forms a ridge of Chalk running north and south, capped by patches of Tertiary clay. Trimmed stones of eolithic nature were obtained from fields ploughed in Drift-gravels, together with abraded Upper Greensand chert, quartzite-pebbles, and small flints. The greater number of the flaked stones were found within and near shallow pits excavated in yellow Drift-clay, apparently newer than the Red Clay with Flints, exposed at the edges of the larger hollows. The implements are unabraded, abraded, and striated; some stained brown, some green, others unstained; evidently some are *in situ*, others were brought with the Drift. Implements taken from the clay are described, and a distinction is made between the palæoliths and neoliths obtained from the same surface. The similarity in the mineral condition of the former to palæoliths from Knowle-Farm Pit is pointed out, and both are referred to the Chelléen period.

It is noteworthy that, while implements and flakes are numerous on the top of Hackpen Hill as compared with good, trimmed pieces, yet at this 570-foot level on the Winterbourne-Bassett plain implements and flakes are very scarce, while trimmed pieces are very numerous, although the level of the Winterbourne stones is 300 feet lower. Many of the latter, however, have been evidently rechipped, and are therefore of later date. The Author concludes that implements of at least three palæolithic periods are found at Knowle, and these three periods may be compared with the Chelléen, Lower Acheulien, and Upper Acheulien of Prof. Comont at St. Acheul. Still older implements (possibly earlier Chelléen) seem also to occur.

2. 'Plant-containing Nodules from Japan, considered structurally in their Relation to the "Coal-Balls" and "Roof-Nodules" of the European Carboniferous.' By Marie C. Stopes, D.Sc., Ph.D.

These nodules are of interest, because of the plant and animal fossils that they contain. The plant-petrifications are of a type

unknown from the Mesozoic, and will be described separately. The nodules are of Cretaceous age. They enclose numerous marine shells and various plant-remains, well petrified. Unlike the 'coal-balls' and 'roof-nodules,' they are not contained in coal-seams or in the roof thereof, but occur in a thick series of shales below the coals, which appear to be of Tertiary age. The microscopic aspect of the matrix shows that it is highly granular, unlike the matrix of coal-balls and roof-nodules. Chemically they consist of about 60 per cent. of carbonates, both lime and magnesia being present, with 30 per cent. of silicates; the large proportion of silicates is an important point of difference from the Carboniferous nodules. In having numerous plant-fragments in a single nodule and in the type of petrification the nodules are like coal-balls; in having marine shells included in the matrix they are more like roof-nodules. They probably represent fragments of tangled débris, which drifted out to sea but a short distance, and then were speedily petrified. The Authoress acknowledges help from the Government Grant Committee of the Royal Society in carrying out the research, and also from the Japanese Government, the Imperial University, and the local Government of Hokkaido, together with the Tunko Kaisha of Hokkaido.

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#### MISCELLANEOUS.

*On some new Steosaurs from the Oxford Clay of Peterborough.*

*To the Editors of the 'Annals and Magazine of Natural History.'*

GENTLEMEN,—Since the publication of my paper on the above subject in the last number of this Magazine (March 1st), a part of the 'Palæontographica' (Bd. 55, Lief. 5 & 6) has been issued, containing a memoir by Dr. E. Auer, also on some Steosaurs from the same horizon and locality. In this the author describes as a new species *St. teleosauroides*, the form which I named *St. leedsi*, and as a new variety, *St. larteti*, var. *kokeni*, the animal which I regarded as specifically distinct under the name *St. durobrivensis*.

It seems unfortunate that Dr. Auer should have been anticipated by my brief note after he has taken such pains to produce so excellent a memoir.

CHARLES W. ANDREWS.

17th March, 1909.